



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0024; Directorate Identifier 2000-NE-12-AD]

RIN 2120-AA64

Airworthiness Directives; Turbomeca S.A. Turboshift Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to supersede an existing airworthiness directive (AD) that applies to all Turbomeca S.A. Arrius Models 2B, 2B1, and 2F turboshift engines. The existing AD currently requires replacement of injector manifolds and borescope-inspection of the flame tube and the high-pressure (HP) turbine area for possible damage. Since we issued that AD, we received a report that the corrective actions of the existing AD were insufficient to eliminate the unsafe condition. This proposed AD would require, depending on the engine model, repetitive replacements of fuel injection manifolds and the privilege injector, or, repetitive replacements of the privilege injector. We are proposing this AD to prevent an uncommanded in-flight shutdown of Arrius 2B1 and 2F turboshift engines and damage to the helicopter.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this AD, contact Turbomeca, 40220 Tarnos, France; phone: 33 (0)5 59 74 40 00; telex: 570 042; fax: 33 (0)5 59 74 45 15. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7176; fax: 781-238-7199; email: james.lawrence@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2013-0024; Directorate Identifier 2000-NE-12-AD” at the

beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

On January 9, 2006, we issued AD 2001-08-14R1, Amendment 39-14423 (71 FR 2993, January 19, 2006), for all Arrius Models 2B, 2B1, and 2F turboshaft engines. That AD requires replacement of injector manifolds and borescope inspection of the flame tube and the HP turbine area. That AD resulted from reports from the Direction Generale de L'Aviation Civile (DGAC), which was the airworthiness authority for France, of partially or totally blocked fuel injection manifolds found during inspections at a repair workshop. We issued that AD to prevent engine flameout during rapid deceleration, or the inability to maintain the 2.5 minutes OEI rating, and to prevent injector air path cracks, due to blockage of the fuel injection manifolds.

Actions Since Existing AD Was Issued

Since we issued AD 2001-08-14R1, Amendment 39-14423 (71 FR 2993, January 19, 2006), Turbomeca reported that the corrective actions in that AD were insufficient to eliminate the unsafe condition. During inspections carried out at the repair workshop, some main injectors were found totally or partially blocked. In response, the European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, issued EASA AD 2012-0249, dated November 21, 2012, to mandate replacements of the fuel injection manifolds and privilege injector on Arrius

2B1 turboshaft engines, and, EASA AD 2012-0150, dated August 8, 2012, to mandate replacements of the privilege injector on Arrius 2F turboshaft engines. Also, since we issued AD 2001-08-14R1, the Arrius 2B engine model is no longer in service and has been removed from the engine Type Certificate Data Sheet No. E34NE, as requested by the manufacturer.

Relevant Service Information

We reviewed Turbomeca S.A. Alert Mandatory Service Bulletin (MSB) No. A319 73 2012, Version I, dated November 12, 2012. That Alert MSB describes Arrius 2B1 engine procedures for replacing, checking, or cleaning the injector manifolds and the privilege injector. We also reviewed Turbomeca S.A. Alert MSB No. A319 73 4001, Version K, dated February 10, 2012. That Alert MSB describes procedures for cleaning or replacing the Arrius 2F privilege injector.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require, for Arrius 2B1 turboshaft engines, initial and repetitive replacement of the fuel injection manifold and the privilege injector within 200 hours time-since-new (TSN) or since the last accomplishment of Turbomeca S.A. Alert MSB No. A319 73 2012, Version I, dated November 12, 2012, whichever occurs first. This proposed AD would also require, for Arrius 2F turboshaft engines, initial and repetitive replacement of the privilege injector before exceeding 400 hours TSN or since the last accomplishment of Turbomeca S.A. Alert MSB No. A319 73 4001, Version K, dated February 10, 2012, whichever occurs first.

Costs of Compliance

We estimate that this proposed AD would affect about 38 Arrius 2B1 engines and about 93 Arrius 2F engines installed on helicopters of U.S. registry. We also estimate that it would take about two hours per engine to replace the injector manifolds and about one hour per engine to replace the privilege injector. The average labor rate is \$85 per hour. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$663,615.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We have determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing airworthiness directive (AD) 2001-08-14R1, Amendment 39-14423 (71 FR 2993, January 19, 2006), and adding the following new AD:

Turbomeca S.A.: Docket No. FAA-2013-0024; Directorate Identifier 2000-NE-12-AD.

(a) Comments Due Date

The FAA must receive comments on this AD action by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD supersedes AD 2001-08-14R1, Amendment 39-14423 (71 FR 2993, January 19, 2006).

(c) Applicability

This AD applies to all Turbomeca S.A. Arrius models 2B1 and 2F turboshaft engines.

(d) Unsafe Condition

This AD was prompted by a report that the corrective actions of AD 2001-08-14R1, Amendment 39 14423 (71 FR 2993, January 19, 2006) were insufficient to eliminate the unsafe condition. We are issuing this AD to prevent an uncommanded in-flight shutdown of Arrius 2B1 and 2F turboshaft engines and damage to the helicopter.

(e) Compliance

Comply with this AD within the compliance times specified, unless already done.

(f) Arrius 2B1 Turboshaft Engines

(1) Replace the fuel injector manifolds and privilege injector with parts eligible for installation before exceeding 200 operating hours time-since-new (TSN) or since last inspection of the fuel injection manifolds or privilege injector, whichever comes first.

(2) Borescope-inspect the flame tube and the high-pressure turbine area for turbine distress.

(3) Thereafter, within every 200 operating hours time-in-service (TIS) since last fuel injector manifolds and privilege injector replacement, replace the fuel injector manifolds and the privilege injector with parts eligible for installation.

(g) Arrius 2F Turboshaft Engines

(1) Replace the privilege injector with a privilege injector eligible for installation before exceeding 400 operating hours TSN or since last inspection on the privilege injector, whichever occurs first.

(2) Borescope-inspect the flame tube and the high-pressure turbine area for turbine distress.

(3) Thereafter, within every 400 operating hours TIS since last privilege injector replacement, replace the privilege injector with parts eligible for installation.

(h) Definition

For the purposes of this AD, time-in-service (TIS) is defined as the number of engine operating hours on the manifolds since the manifolds were new or since the manifolds were last cleaned, whichever is more.

(i) Installation Prohibitions

(1) For Arrius 2B1 turboshaft engines, after the effective date of this AD, do not install fuel injector manifolds or a privilege injector on an engine, or an engine on a helicopter, unless the fuel injection manifold and privilege injector have accumulated fewer than 200 operating hours since new, or since last inspection.

(2) For Arrius 2F turboshaft engines, after the effective date of this AD, do not install a privilege injector on an engine, or an engine on a helicopter, unless the privilege injector has accumulated fewer than 400 operating hours since new, or since last inspection.

(j) Alternative Methods of Compliance (AMOCs)

The Manager, Engine Certification Office, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(k) Related Information

(1) For more information about this AD, contact James Lawrence, Aerospace Engineer, Engine Certification Office, FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; phone: 781-238-7176; fax: 781-238-7199; email: james.lawrence@faa.gov.

(2) See European Aviation Safety Agency AD 2012-0150, dated August 8, 2012, and AD 2012-0249, dated November 21, 2012, Turbomeca S.A. Alert Mandatory Service Bulletin (MSB) No. A319 73 2012, Version I, dated November 12, 2012, and Turbomeca

S.A. Alert MSB No. A319 73 4001, Version K, dated February 10, 2012, for related information.

(3) For service information identified in this AD, contact Turbomeca, 40220 Tarnos, France; phone: 33 (0)5 59 74 40 00; telex: 570 042; fax: 33 (0)5 59 74 45 15. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts, on January 30, 2013.

Colleen M. D'Alessandro,
Assistant Manager, Engine & Propeller Directorate,
Aircraft Certification Service.

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